

## CLAIMS

1. A system for assisting the maintenance of a particle filter integrated into an exhaust line of a motor vehicle diesel engine, the system being characterized in that it comprises:

5 · means (1) for calculating the volume of ash from the engine lubricating oil,

10 · means (2) for calculating the volume of ash from the engine fuel,

15 · means (4) for calculating the usable volume (V.u) of the particle filter from a total volume of said filter when new (V.new) and the previously calculated volumes of ash, and

20 · means (5) for calculating a degree of clogging of the particle filter (d.c.) from the total volume of the filter when new (V.new) and the previously calculated usable volume (V.u) to trigger a maintenance request (Maint.Req.) if the degree of clogging (d.c.) exceeds a predetermined threshold (threshold).

25 2. A maintenance assistance system according to claim 1, characterized in that it further comprises means (3) for calculating the volume of residues from combustion of an additive for reducing the combustion temperature of particles trapped in the particle filter and mixed with the fuel supplied to the engine, said means (3) being connected to means (4) for calculating the usable volume (V.u) .

30 3. A maintenance assistance system according to claim 1 or claim 2, characterized in that it further comprises means (7) for calculating the distance (D.maint.) at which a particle filter maintenance operation should be timetabled from the distance (D.trav.) traveled by the vehicle since the particle filter was new or cleaned and the previously calculated degree of clogging (d.c.) of the filter.

4. A maintenance assistance system according to claim 3, characterized in that it further comprises means (8) for calculating the distance (D.rem.) remaining to be traveled before particle filter maintenance from the previously calculated maintenance distance (D.maint.) and the distance (D.trav.) already traveled by the vehicle.
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